## Homework Assignment No. 1

**DSCI – Computational Thinking and Programming**

**September 5, 2017**

**Due Date: September 12, 2017 no later than 11:59 pm**

**My name is .**

Below is a table of two columns. The first column provides you with information that you should type into the window of your IDLE screen. Don’t type in the three chevrons (>>>); these are prompts that signal you to put information onto the line where they are located. After you input the given instructions, put your answer into the corresponding cell in the right-hand column. You can copy this from your IDLE screen to the column that says “What is your result?” If the response is an error, it could very well be one. Copy this response also into the corresponding cell in the second column.

You should be observing and thinking about the results that you get. You should be asking yourself, “Why did this happen?” Familiarize yourself with what’s going on; don’t try to memorize the information. What you’re doing will graduallye soak into your minds over the course of the semester. Pay attention to the colors of the words. Can you figure out the color codes?

Where you see the word Name, type in your own name.

If you have questions or don’t understand something, ask for assistance. You can e-mail me for help at [wpechenu@kent.edu](mailto:wpechenu@kent.edu) . You might also want to go to the discussion board for help. Your classmates might also be having the same problems or have the same questions.

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| --- | --- |
| **Use the Interactive Development Environment (IDLE) to input the following information** | **What is your result?** |
|  |  |
| >>> import keyword  >>> print (keyword.kwlist) | ['False', 'None', 'True', 'and', 'as', 'assert', 'break', 'class', 'continue', 'def', 'del', 'elif', 'else', 'except', 'finally', 'for', 'from', 'global', 'if', 'import', 'in', 'is', 'lambda', 'nonlocal', 'not', 'or', 'pass', 'raise', 'return', 'try', 'while', 'with', 'yield'] |
| >>> keyword.keyword | Traceback (most recent call last):  File "<pyshell#4>", line 1, in <module>  keyword.keyword  AttributeError: module 'keyword' has no attribute 'keyword' |
| >>> x = 5  >>> s = "mailbox"  >>> lst = [1, 2, 3]  >>> s, lst | ('mailbox', [1, 2, 3]) |
| >>> (x \* 2) - 7 | 3 |
| >>> x \* (2 - 7) | -25 |
| >>> x \* 2 - 7 | 3 |
| >>> x - 2 \* 7 | -9 |
| >>> x \* s | 40 |
| >>> s = "mailbox "  >>> x \* s | 'mailboxmailboxmailboxmailboxmailbox' |
| >>> X \* s |  |
| >>> 'Name' | ‘Andrew’ |
| >>> "Name" | “Andrew” |
| >>> ''Name'' | SyntaxError: invalid syntax |
| >>> ""Name"" | SyntaxError: invalid syntax |
| >>> '"Name"' | '"Andrew"' |
| >>> "'Name'" | "'Andrew'" |
| >>> '''Name''' | ‘Andrew’ |
| >>> """Name""" | ‘Andrew’ |
| >>> g = "Name"  >>> g | ‘Andrew’ |
| >>> g = 'Name'  >>> g | ‘Andrew |
| >>> g = Name | Traceback (most recent call last):  File "<pyshell#31>", line 1, in <module>  g = name  NameError: name 'name' is not defined |
| >>> g = "Name"  >>> print (g) | Andrew |
| >>> g = 'Name'  >>> print (g) | Andrew |
| >>> g = '"Name"'  >>> g | ‘“Andrew”’ |
| >>> print (g) | “Andrew” |
| >>> g = "'Name'"  >>> g | "'Andrew'" |
| >>> print (g) | ‘Andrew’ |
| >>> lst1 = [9, 3, 7]  >>> lst1 = lst1.sort()  >>> | No output |
| >>> print (lst1) | None |
| >>> lst1.sort() | lst1 is sorted increasingly |
| >>> lst1 = [9, 3, 7]  >>> lst1.sort()  >>> lst1 | [3, 7, 9] |
| >>> print (lst1) | [3, 7, 9] |
| >>> num = 10.5  >>> j = 10 \* num  >>> j | 105.0 |
| >>> print (j) | 105.0 |
| >>> k = "King "  >>> k | ‘King ‘ |
| >>> print (k) | King |
| >>> k \* 2 | ‘King King ’ |
| >>> print (k \* 2) | King King |
| >>> q = "Queen "  >>> q | ‘Queen ‘ |
| >>> print (q) | Queen |
| >>> k, q = q, k  >>> k, q | ('Queen ', 'King ') |
| >>> print (k, q) | Queen King |
| >>> print (q, k) | King Queen |
| >>> a, e, i, o, u = range(5)  >>> a | 0 |
| >>> e | 1 |
| >>> u | 4 |
| >>> dummy, a, e, i, o, u = range(5 + 1)  >>> dummy | 0 |
| >>> u | 5 |
| >>> s, t, r = [A, B, C] | Traceback (most recent call last):  File "<pyshell#96>", line 1, in <module>  s, t, r = [A, B, C]  NameError: name 'A' is not defined |
| >>> s, t, r = ['A', 'B', 'C']  >>> s, t, r | ('A', 'B', 'C') |
| >>> s, t | ('A', 'B') |
| >>> s, r | ('A', 'C') |
| >>> p, q, r = [1, two, 3.0] | Traceback (most recent call last):  File "<pyshell#101>", line 1, in <module>  p, q, r = [1, two, 3.0]  NameError: name 'two' is not defined |
| >>> p, q, r = [1, 'two', 3.0]  >>> p, q, r |  |
| >>> print (p, q, r) | (1, 'two', 3.0) |
| >>> s, t, u = ['1', 'two', '3.0']  >>> s, t, u | ('1', 'two', '3.0') |
| >>> print (s, t, u) | 1 two 3.0 |
| >>> s, t, u = ('1', 'two', '3.0')  >>> s, t, u | ('1', 'two', '3.0') |
| >>> print (s, t, u) | 1 two 3.0 |
| >>> s, t, u = (1, 'two', 3.0)  >>> s, t, u | (1, 'two', 3.0) |
| >>> print (s, t, u) | 1 two 3.0 |
| >>> d, e, f = ["A", "B", "C"]  >>> d, e, f | ('A', 'B', 'C') |
| >>> g, h, i = "ABC"  >>> g, h, i | ('A', 'B', 'C') |
| >>> print (g, h, i) | A B C |
| >>> letterX, letterY, letterZ = "ABC"  >>> letterX | ‘A’ |
| >>> print (letterZ) | C |
| >>> letterX, letterY, letterZ = range(3)  >>> letterY | 1 |
| >>> height = 10.0  >>> width = 5.0  >>> area = height \* width  >>> area | 50.0 |
| >>> triangle = area \* 0.5  >>> triangle | 25.0 |
| >>> newHeight = letterY  >>> newWidth = letterZ  >>> newArea = newHeight \* newWidth  >>> newArea | 2 |
| >>> newTriangle = newArea \* 0.5  >>> newTriangle | 1.0 |
| >>> Time = flies = "Saying"  >>> Time, flies | ('Saying', 'Saying') |
| >>> print (Time, flies) | Saying Saying |
| >>> print (Time flies) | SyntaxError: invalid syntax |
| >>> swap = switch | Traceback (most recent call last):  File "<pyshell#143>", line 1, in <module>  swap = switch  NameError: name 'switch' is not defined |
| >>> swap = "switch"  >>> switch = "swap"  >>> print (swap, switch) | switch swap |
| >>> swap, switch = "switch", "swap"  >>> swap, switch | ('switch', 'swap') |
| >>> print (swap, switch) | switch swap |
| >>> HMunro = HHMunro = Saki = "Alias "  >>> print (HMunro, HHMunro, Saki) | Alias Alias Alias |
| >>> del HMunro, HHMunro  >>> HMunro, HHMunro, Saki | Traceback (most recent call last):  File "<pyshell#153>", line 1, in <module>  HMunro, HHMunro, Saki  NameError: name 'HMunro' is not defined |
| >>> Saki | ‘Alias ‘ |
| >>> print (Saki) | Alias |
| >>> print ("Saki") | Saki |
| >>> "Saki" | ‘Saki’ |
| >>> "Saki", "Saki" | ('Saki', 'Saki') |
| >>> Saki | ‘Alias ‘ |
| >>> six, twiceSix = 6, 2 \* six | Traceback (most recent call last):  File "<pyshell#160>", line 1, in <module>  six, twiceSix = 6, 2 \* six  NameError: name 'six' is not defined |
| >>> six = 6  >>> twiceSix = 2 \* six  >>> twiceSix | 12 |
| >>> six = 6  >>> twiceSix = 2 \* six  >>> twiceSix | 12 |
| >>> two = 2  >>> six, twiceSix = two \* 3, 2(two \* 3) | Traceback (most recent call last):  File "<pyshell#169>", line 1, in <module>  six, twiceSix = two \* 3, 2(two \* 3)  TypeError: 'int' object is not callable |
| >>> six, twiceSix = two \* 3, 2 \* (two \* 3)  >>> six |  |
| >>> twiceSix | 6 |
| >>> six, twiceSix | (6, 12) |
| >>> print (six, "\t", twiceSix, "\n", twiceSix, "\t", six, "\n")  [The above is one line; do not break it up.] | 6 12  12 6 |
| >>> print (six, 2 \* "\t", twiceSix, 2 \* "\n", twiceSix, 4 \* "\t", six, 4 \* "\n")  [The above is one line.] | 6 12  12 6 |